

In the Claims

Kindly amend claims 42, 43, 45, 46 and 47 and insert new claims 52 and 53, as shown in the following listing of the entire claims in the Application.

1 – 6. (Canceled).

7. (Withdrawn) A polynucleotide encoding the hybrid polypeptide of claim 1.

8. (Cancelled).

9. (Withdrawn) A cell transfected or transformed with the polynucleotide of claim 7.

10 - 21. (Cancelled).

22. (Withdrawn) A method for treating an allergic disorder comprising administering the pharmaceutical composition of claim 20 to a patient in need thereof.

23. (Withdrawn) A method for inducing tolerance to a given allergen, comprising administering the pharmaceutical composition of claim 20 to a patient in need thereof.

24. (Withdrawn) A method for providing immunity to a given allergen, comprising administering the pharmaceutical composition of claim 20 to a patient in need thereof.

25. (Withdrawn) A method for detecting antibodies against a given allergenic protein in a sample, comprising conducting *in vitro* antibody tests employing the hybrid polypeptide of any one of claims 1 to 6 or conducting *in vitro* or *in vivo* cellular-based tests employing the hybrid polypeptide of any one of claims 1 to 6.

26 – 35. (Cancelled).

36 (Withdrawn) A method of identifying plant hybrid allergens for treatment of IgE-mediated hypersensitivity to the respective wild-type allergens comprising the steps of:

- (a) providing a fusion allergen of naturally occurring plant allergens;
- (b) challenging an immunological model with said fusion allergen;
- (c) selecting as candidate immunotherapeutic agents, those fusion allergens which

induce IgE-blocking antibodies and have reduced allergenic activity compared with the respective wild-type allergens.

37. (Withdrawn) The method of claim 36, wherein the hybrid allergen is a fusion protein of two or more wild-type allergens.

38. (Withdrawn) The method of claim 36, wherein the hybrid allergen is a fusion protein of fragments of two or more wild-type allergens.

39. (Withdrawn) The method of claim 36, wherein the hybrid allergen is a fusion protein of fragments of two or more wild-type allergens, and wherein each fragment contains at least eight consecutive amino acids of the wild-type allergen.

40. (Withdrawn) The method of claim 37, wherein the hybrid allergen is a fusion protein of one or more modifications of at least one of the two or more wild-type allergens.

41. (Withdrawn) The method of claim 36, wherein the hybrid allergen is prepared by chemical synthesis.

42. (Currently amended) A method of preparing fusion ~~polypeptides~~ allergens consisting of recombinant polypeptides of two or more different naturally occurring timothy grass pollen allergens for use as immunotherapeutic agents comprising:

- (a) providing a polynucleotide sequence encoding the fusion ~~polypeptide~~ allergen ~~polypeptide~~;
- (b) introducing said polynucleotide sequence into a host cell;
- (c) culturing the host cell obtained in b) under conditions such that the fusion ~~polypeptide~~ allergen is expressed; and
- (d) recovering the expressed fusion ~~polypeptide~~ allergen from the cultured host cell;
- (e) testing the fusion ~~polypeptide~~ allergen as candidate immunotherapeutic agents by administering said ~~polypeptide~~ allergen to a test animal and selecting as immunotherapeutic agents those fusion ~~polypeptide~~ allergens that induce IgE-blocking antibodies and induce stronger immune responses compared with the individual

components or fragments thereof.

43. (Currently amended) The method of claim 42, wherein the polynucleotide sequence encoding the timothy grass pollen ~~polypeptide~~ allergen is obtained using PCR technology.

44. (Withdrawn) A method of treating IgE-mediated hypersensitivity to plant allergens comprising administering to a patient in need of such treatment, a pharmaceutical composition comprising one or more hybrid plant fusion allergens as immunotherapeutic agents, wherein said agents have been identified by a method comprising the steps of:

- (a) providing fusion allergens of naturally occurring plant allergens;
- (b) challenging an immunological model with said fusion allergen;
- (c) selecting as candidate immunotherapeutic agents, those fusion allergens which induce IgE-blocking antibodies and have reduced allergenic activity compared with the respective wild-type allergens.

45. (Currently amended) A pharmaceutical composition comprising one or more fusion allergens of timothy grass pollen allergens as immunotherapeutic agents, wherein said agents consists of recombinant fusion allergens of two or more different naturally occurring timothy grass pollen allergens which have been identified by a method comprising the steps of:

- (a) providing fusion allergens of naturally occurring timothy grass pollen allergens;
- (b) challenging an immunological model with said fusion allergens;
- (c) selecting as candidate immunotherapeutic agents, those fusion allergens which induce IgE-blocking antibodies and ~~have reduced allergenic activity~~ induce stronger immune responses compared with the respective allergens which comprise the fusion allergen.

46. (Currently amended) A ~~hybrid~~ fusion allergen for treatment of IgE-mediated hypersensitivity, wherein said ~~hybrid~~ fusion allergen ~~is a fusion protein consisting~~ consists of two or more different timothy grass pollen allergens.

47. (Currently amended) The ~~hybrid~~ fusion allergen of claim 46, wherein said ~~hybrid~~ fusion allergen is a fusion protein of two or more different proteins selected from the group consisting of timothy grass pollen allergens rPhl p 1, rPhl p 2, rPhl p 5, and rPhl p 6.

48 - 51. (Canceled).

52 (new) The method of claim 42, wherein the recombinant polypeptide of two or more different naturally occurring timothy grass pollen allergens is any selected from the group consisting of rPhl p 5/rPhl p1, rPhl p 2/rPhl p6, rPhl p 6/rPhl p2, and rPhl p 6/rPhl p2/ rPhl p 5/rPhl p1.

53 (new) The pharmaceutical composition of claim 45, wherein the recombinant fusion allergens of two or more different naturally occurring timothy is any selected from the group consisting of rPhl p 5/rPhl p1, rPhl p 2/rPhl p6, rPhl p 6/rPhl p2, and rPhl p 6/rPhl p2/ rPhl p 5/rPhl p1.